58.   The method of Claim 53, wherein the additional information is determined using data mining techniques.
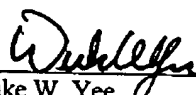
REMARKS

Claims 2-5, 7-13, 17-20, and 22-28 are pending in the present application. Please cancel claims 2-5, 7-13, 17-20, and 22-28 without prejudice. Please add claims 31-58. These changes are not believed to add new matter, and their entry is respectfully requested. Reconsideration of the claims is respectfully requested.

It is respectfully urged that the subject application, as amended, is patentable over Hughes, and over Hughes in view of Abell, and is now in condition for allowance.

. The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

Date: November 25, 2002

Respectfully submitted,

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REDACTED CLAIMS

[2. (ONCE AMENDED)   A method for determining data relationships of data associated with product placement in a retail space, the method comprising the computer-implemented steps of:

determining locations of products within the retail space using a position identifying system;

identifying customers within the retail space;

recording paths of customers through the retail space using the position identifying system;

identifying products chosen for purchase by the customers during the paths of the customers through the retail space; and

associating the locations of products within the retail space with the paths of the customers through the retail space to form a set of spatial relationships; and

employing data mining algorithms to generate input data for forming the set of spatial relationships.]

[3. (ONCE AMENDED)   The method of claim 2 further comprising:

employing spatial analysis algorithms to form the set of spatial relationships.]

[4. (ONCE AMENDED)   The method of claim 2 wherein the position identifying system comprises a global positioning system or other remote sensing device.]

[5. (ONCE AMENDED)   The method of claim 2 wherein the position identifying system comprises a local positioning system that may or may not be associated with a global positioning system.]

[7. (ONCE AMENDED)   The method of claim 9 further comprising:

selecting locations for products in the retail space based on the set of spatial relationships.]

[8. (ONCE AMENDED)   The method of claim 7 further comprising:

identifying locations of products relocated within the retail space based on the selected locations; and

associating the patterns of customers with the locations of relocated products to form a second set of spatial relationships.]

[9. (ONCE AMENDED)   A method for determining data relationships of data associated with product placement in a retail space, the method comprising the computer-implemented steps of:

identifying patterns of customers in the retail space;

identifying locations of products within the retail space; and

associating the patterns of customers with the locations of products to form a set of spatial relationships; and

employing data mining algorithms to generate input data for forming the set of spatial relationships.]

[10. (ONCE AMENDED)   The method of claim 9 further comprising:

employing spatial analysis algorithms to form the set of spatial relationships.]

[11. (ONCE AMENDED)   The method of claim 9 further comprising:

identifying patterns of customers and locations of products within the retail space comprises using a position identifying system.]

[12.   The method of claim 11 wherein the position identifying system comprises a local positioning system that may or may not be associated with a global positioning system.]

[13.   The method of claim 11 wherein the position identifying system comprises a global positioning system or some other means of sensing position of objects of interest.]

[17. (ONCE AMENDED)   A data processing system for determining data relationships of data associated with product placement in a retail space, the data processing system comprising:

determining means for determining locations of products within the retail space using a position identifying system;

first identifying means for identifying customers within the retail space;

recording means for recording paths of customers through the retail space using the position identifying system;

second identifying means for identifying products chosen for purchase by the customers during the paths of the customers through the retail space; and

associating means for associating the locations of products within the retail space with the paths of the customers through the retail space to form a set of spatial relationships and

first employing means for employing data mining algorithms to generate input data for forming the set of spatial relationships.]

[18. (ONCE AMENDED)   The data processing system of claim 17 further comprising:
        second employing means for employing spatial analysis algorithms to form the set of spatial relationships.]

[19. (ONCE AMENDED)   The data processing system of claim 17 wherein the position identifying system comprises a global positioning system.]

[20. (ONCE AMENDED)   The data processing system of claim 17 wherein the position identifying system comprises a local positioning system.]

[22. (ONCE AMENDED)   The data processing system of claim 24 further comprising:
        selecting means for selecting locations for products in the retail space based on the set of spatial relationships.]

[23.   The data processing system of claim 22 further comprising:
        third identifying means for identifying locations of products relocated within the retail space based on the selected locations; and
        second associating means for associating the patterns of customers with the locations of relocated products to form a second set of spatial relationships.]

[24. (ONCE AMENDED)   A data processing system for determining data relationships of data associated with product placement in a retail space, the data processing system comprising:
        first identifying means for identifying patterns of customers in the retail space;
        second identifying means for identifying locations of products within the retail space; and
        first associating means for associating the patterns of customers with the locations of products to form a set of spatial relationships and
        first employing means for employing data mining algorithms to generate input data for forming the set of spatial relationships.]

[25. (ONCE AMENDED)   The data processing system of claim 24 further comprising:
        second employing means for employing spatial analysis algorithms to form the set of spatial relationships.]

[26. (ONCE AMENDED)   The data processing system of claim 24 further comprising:
        fourth identifying means for identifying patterns of customers and locations of products within the retail space comprises using a position identifying system.]

[27.   The data processing system of claim 26 wherein the position identifying system comprises a local positioning system.]

[28.   The data processing system of claim 26 wherein the position identifying system comprises a global positioning system.]

31.   A method for determining relationships of data associated with product placement in a retail space, the method comprising the steps of:
        generating customer data by associating individual customers with information related to each customer using data mining techniques;
        associating spatial relationships with the customer data to determine additional information concerning purchases by the customer.

32.   The method of Claim 31, wherein the additional information is found using data mining techniques.

33.   The method of Claim 31, wherein the spatial relationships include the relative placement of products within the retail space.

34.   The method of Claim 31, wherein the spatial relationships include customer paths through the retail space associated with product placement within the retail space.

35.   The method of Claim 31, wherein the spatial relationships include customer paths through the retail space associated with products purchased.

36.   The method of Claim 31, wherein the spatial relationships include data gathered from a remote sensing system.

37.   The method of Claim 31, wherein the information related to each customer includes demographic information about individual customers gathered from a database.

38.   The method of Claim 31, wherein the additional information is determined using data mining techniques.

39.   A method for determining relationships of data associated with product placement in a retail space, the method comprising the steps of:

    generating data relationships using data mining techniques, wherein the data relationships associate individual customers with information related to the individual customers;

    generating spatial relationships using data mining techniques, wherein the spatial relationships include relative placement of products within the retail space;

    integrating the data relationships with the spatial relationships to determine additional information concerning purchases by the customers.

40.   The method of Claim 39, wherein the spatial relationships further include associations of customer paths through the retail space with product placement within the retail space.

41.   The method of Claim 39, wherein the spatial relationships further include associations with customer paths through the retail space with products purchased.

42.   The method of Claim 39, wherein the spatial relationships further include associations of product placement within the retail space with products purchased.

43.   The method of Claim 39, wherein the information related to the individual customers includes demographic information about the individual customers gathered from a database.

44.   The method of Claim 39, wherein the additional information is determined using data mining techniques.

45.   A data processing system for determining data relationships of data associated with product placement in a retail space, the data processing system comprising:

        means for generating customer data by associating individual customers with information related to each customer using data mining techniques;

        means for associating spatial relationships with the customer data to determine additional information concerning purchases by the customer.

46.   The system of Claim 45, wherein the additional information is found using data mining techniques.

47.   The system of Claim 45, wherein the spatial relationships include the relative placement of products within the retail space.

48.   The system of Claim 45, wherein the spatial relationships include customer paths through the retail space associated with product placement within the retail space.

49.   The system of Claim 45, wherein the spatial relationships include customer paths through the retail space associated with products purchased.

50.   The system of Claim 45, wherein the spatial relationships include data gathered from a remote sensing system.

51.   The system of Claim 45, wherein the information related to each customer includes demographic information about individual customers gathered from a database.

52.   The system of Claim 45, wherein the additional information is determined using data mining techniques.

53.   A data processing system for determining data relationships of data associated with product placement in a retail space, the data processing system comprising:

        first generating means for generating data relationships using data mining techniques, wherein the data relationships associate individual customers with information related to the individual customers;

_____second generating means for generating spatial relationships using data mining techniques, wherein the spatial relationships include relative placement of products within the retail space;

_____means for integrating the data relationships with the spatial relationships to determine additional information concerning purchases by the customers.

54.   The system of Claim 53, wherein the spatial relationships further include associations of customer paths through the retail space with product placement within the retail space.

55.   The system of Claim 53, wherein the spatial relationships further include associations with customer paths through the retail space with products purchased.

56.   The system of Claim 53, wherein the spatial relationships further include associations of product placement within the retail space with products purchased.

57.   The system of Claim 53, wherein the information related to the individual customers includes demographic information about the individual customers gathered from a database.

58.   The method of Claim 53, wherein the additional information is determined using data mining techniques.